OFS Asset Liability Management Application Pack Cloning Reference Guide

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## Document Control

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<td>Captured steps to set up an OFSAA Instance Clone for the 8.0.x.0.0 release.</td>
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<td>Modified: May 2016</td>
<td>Added notes for Bug 23228276 and 22554485.</td>
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<td>• Added note for the table batch_parameter in the section Run the Port Changer Utility (Doc 29448257).</td>
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<td>7.0</td>
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<td>Updated notes in the sections Run the Port Changer Utility and Run the EncryptC.jar Utility to Change the Key and Encryption Strings (Doc 29862507).</td>
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<td>• Added information for (Doc 30649409):</td>
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<td></td>
<td>• Versions 8.0.5.4.0, 8.0.6.0.0, and higher, in the General Requirements section.</td>
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<tr>
<td></td>
<td></td>
<td>• Added the Provide Grants and Set Passwords Using the SysDBA User Login section.</td>
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<td>• Updated information for version 8.0.6.0.0 and higher in the Run the Port Changer Utility for the OFS AA Versions 8.0.2.2.0, 8.0.3.3.0, 8.0.4.2.0 to 8.0.4.5.0, 8.0.5.2.0 to 8.0.5.4.0, or 8.0.6.0.0, and Higher section (Doc 30452275).</td>
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<td>9.0</td>
<td>Updated: Mar 2020</td>
<td>- Added a note in the <a href="#">Target System Requirements</a> section to upgrade the Target OS (Doc 30849532).</td>
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<td>- Updated the <a href="#">Appendix A</a> for the following (Doc 30849532):</td>
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<td>- Step 1 - updated the table for new column names and added the note for value for <code>V_DB_NAME</code>.</td>
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<td></td>
<td></td>
<td>- Step 2 - updated the note for OFS AAI versions 8.0.6 and higher.</td>
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<tr>
<td></td>
<td></td>
<td>- Step 3 - added one-off information for OFS AAI versions 8.0.6 and higher.</td>
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<td></td>
<td></td>
<td>- Step 4 - added note for OFS AAI versions 8.0.6 and higher.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>- Added a note in the <a href="#">Run the EncryptC.sh Utility to Change the Key and Encryption Strings for the OFS AAI Versions 8.0.2.2.0, 8.0.4.2.0 to 8.0.4.5.0, and 8.0.5.2.0 to 8.0.5.4.0</a> section stating that it is an optional step (Doc 30740418).</td>
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<tr>
<td></td>
<td></td>
<td>- Added a quickstart table in the <a href="#">Cloning Process</a> section.</td>
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1 Preface

The purpose of this document is to serve as the reference material to the OFSAA administrators. This document contains detailed steps to set up an OFSAA Instance Clone for the 8.0.x.x.x releases.

1.1 Background

There is a consistent requirement for a faster and effective approach of replicating an existing OFSAA instance for further project developments. The approach is to set up the OFSAA instances that are exact copies of the current OFSAA instance.

1.2 Assumptions

The assumptions made in this document are:

- A working source OFSAA 8.0.x instance is in place.
- An appropriate target system exists for the new OFSAA setup.

1.3 Audience

This reference guide is for the administrators and implementation consultants responsible for the cloning of an OFSAA instance.

1.4 Conventions

The following text conventions are used in this document:

<table>
<thead>
<tr>
<th>Conventions</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.0.x</td>
<td>The OFSAA 8.0.x release.</td>
</tr>
<tr>
<td>Atomic Schema</td>
<td>The Database Schema where the application data model is uploaded.</td>
</tr>
<tr>
<td>Boldface</td>
<td>The boldface font type indicates graphical user interface elements</td>
</tr>
<tr>
<td></td>
<td>associated with an action, or terms defined in text or the glossary.</td>
</tr>
<tr>
<td>Configuration Schema</td>
<td>The Database Schema which contains setup related configurations</td>
</tr>
<tr>
<td>(Config Schema)</td>
<td>and metadata.</td>
</tr>
<tr>
<td>Italic</td>
<td>The italic font type indicates book titles, emphasis, or placeholder</td>
</tr>
<tr>
<td></td>
<td>variables for which you supply particular values.</td>
</tr>
<tr>
<td>Monospace</td>
<td>The monospace font type indicates commands within a paragraph, URLs, code</td>
</tr>
<tr>
<td></td>
<td>in examples, text that appears on the screen, or text that you enter.</td>
</tr>
<tr>
<td>Source</td>
<td>The source OFSAA system.</td>
</tr>
</tbody>
</table>
### 1.5 Abbreviations

The following table lists the abbreviations used in this document:

<table>
<thead>
<tr>
<th>Abbreviations</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>Operating System</td>
</tr>
<tr>
<td>UI</td>
<td>User Interface of the application</td>
</tr>
</tbody>
</table>
Setting Up an OFSAA Instance Clone for the 8.0.x Release

This chapter contains information about the prerequisites, cloning, and post-cloning configurations for the 8.0.x release when setting up an OFSAA Instance Clone. For details, see the following sections:

- Prerequisites
- Cloning Process

2.1 Prerequisites

To set up an OFSAA Instance Clone for the 8.0.x release, complete the following prerequisites:

1. General Requirements
2. Source System Requirements
3. Target System Requirements

NOTE

Complete the prerequisites and then perform the procedures mentioned in the Cloning Process section.

2.1.1 General Requirements

Complete the following general requirements before beginning the cloning process:

1. The FTP/SFTP service is running on the OFSAA target system and the User credentials are available before you begin the cloning activities.

2. For any specific version of the OFSAA (platform) application installed on your system, perform the corresponding action mentioned in the following table:

<table>
<thead>
<tr>
<th>THE VERSION OF THE OFSAA APPLICATION IN USE</th>
<th>PERFORM THE FOLLOWING ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.0.0.0.0</td>
<td>Download the patch <strong>20422514</strong> from My Oracle Support and install it in the source system.</td>
</tr>
<tr>
<td>8.0.1.0.0</td>
<td>Download the patch <strong>22329222</strong> from My Oracle Support and install it in the source system.</td>
</tr>
<tr>
<td>8.0.5.0.x</td>
<td>Download the OFSAA 8.0.5.2.0 ML patch <strong>27552096</strong> from My Oracle Support and install it in the source system to upgrade it to version 8.0.5.2.0.</td>
</tr>
<tr>
<td>8.0.5.1.x</td>
<td>Download the OFSAA 8.0.5.4.0 ML patch <strong>29922464</strong> from My Oracle Support and install it in the source system to upgrade it to version 8.0.5.4.0.</td>
</tr>
</tbody>
</table>
2.1.2 **Source System Requirements**

In the source system, complete the following requirements:

1. All the OFSAA services are brought down.
2. Database connection details such as the RAC/NON-RAC URL, the SID/Service Name, and the User credentials are available.

2.1.3 **Target System Requirements**

In the target system, complete the following requirements:

1. All the basic software required for the installation of OFSAA applications (including infrastructure) is installed and is working on the machine identified as the Target OFSAA instance. You can use the Environment Check utility to verify system readiness. For details on how to use the Environment Check Utility, see the [OFS Analytical Applications Environment Check Utility Guide](#).

For details on the software and hardware requirements, see the *Hardware and Software Requirements* section in the Release 8.0.2.0.0 and Release 8.0.7.0.0 of the [OFS AAAI Application Pack Installation and Configuration Guide](#).

**NOTE** Upgrade the Target OS version to the same version as that of the Source OS. Binaries are OS version specific and cloning requires that there is no mismatch of library files.

2. The Web Server and the Web Application Server are configured. For details on how to configure web servers, see the *Configuring Web Server* section in the Release 8.0.2.0.0 and Release 8.0.7.0.0 of the [OFS AAAI Application Pack Installation and Configuration Guide](#).

3. The OFSAA installation directory is set as `$FIC_HOME` with the 750 permission. For example, `/scratch/ofsaanew/OFSAA`

4. The OFSAA staging/metadata repository directory is set as `ftpshare` with the 775 permission. For example, `/scratch/ofsaanew/ftpsharenew`

5. The database connection details such as the RAC/NON-RAC URL, the SID/Service Name, and the User credentials are available.

**NOTE** Create a new database instance that is different from the database instance used in the Source OFSAA instance.

6. The Web Server and the Web Application Server identified for the deployment of the OFSAA applications are installed and configured on the machine which is identified as the Web Server and Web Application Server.
2.2 Cloning Process

Before initiating the cloning process, perform these steps to retrieve the schema names:

1. Log in to the Source Config Schema.
2. Execute the following query to retrieve the Config Schema name and Atomic Schema name.

   ```sql
   select dbuserid from db_master;
   ```

   In the `expdp` and `impdp` database utilities, you can use the schema names in the `SCHEMAS` attribute.

Subsequent steps for cloning are described in the subsections in this topic and the following table is a quickstart with a summary view of the cloning process:

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Cloning Process (click the links to go to the specified steps in the document)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Export the complete Configuration and Atomic Schemas from the source environment</td>
</tr>
</tbody>
</table>
| 2.     | Restore the complete exported dumps into the target environment database  
             • Restore the complete exported dumps into the target environment database with a different database user name (schema) |
| 3.     | Provide grants and set passwords using the SysDBA user login  
               a. Provide the select grants permission on the `sys.V_\$parameter` view to the Config and Atomic Schemas of the target environment database  
               b. When you import into different schema names, set the passwords for the Config and Atomic Schemas of the target environment database same as that of the password in the source |
<p>| 4.     | Log in to the Config Schema of the target environment database |
| 5.     | Copy and restore the OFSAA file system |
| 6.     | Modify files in the path <code>$FIC_HOME</code> when you import the files into different schemas |</p>
<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Cloning Process (click the links to go to the specified steps in the document)</th>
</tr>
</thead>
</table>
| 7.     | Run the Port Changer utility  
        • Run the Port Changer utility for the OFS AAI versions 8.0.2.2.0, 8.0.3.3.0, 8.0.4.2.0 to 8.0.4.5.0, 8.0.5.2.0 to 8.0.5.4.0, or 8.0.6.0.0, and higher |
| 8.     | Run the EncryptC.jar utility to change the key and encryption strings  
        a. Run the EncryptC.sh utility to change the key and encryption strings for the OFS AAI versions 8.0.2.2.0, 8.0.4.2.0 to 8.0.4.5.0, and 8.0.5.2.0 to 8.0.5.4.0  
        b. Run the EncryptC.sh utility to change the key and encryption strings for the OFS AAI versions 8.0.6.0.0 and higher |
| 9.     | Perform the post-cloning configurations |
| 10.    | Create and deploy the .ear/.war files |
| 11.    | Access the UI |

### 2.2.1 Export the Complete Configuration and Atomic Schemas From the Source Environment

Export all the Configuration and Atomic Schemas from the Source environment.

For example:

```bash
expdp SYSTEM/oracle@OFSA12C2DB DIRECTORY=data_pump_dir DUMPFILE=ofsaaconf_ofsaaatm_%U.dmp filesize=2G SCHEMAS=ofsaaconf,ofsaaatm LOGFILE=ofsaaconf_ofsaaatm_exp.log
```

**NOTE**

Running the preceding command creates data dumps in the files in multiples of 2GB. You can use any other equivalent commands/tools to archive the schemas.

### 2.2.2 Restore the Complete Exported Dumps Into the Target Environment Database

Restore all the exported dumps into the Target environment database.

For example:

```bash
impdp SYSTEM/oracle@OFSA12nDB DIRECTORY=data_pump_dir DUMPFILE=ofsaaconf_ofsaaatm_%U.dmp SCHEMAS=ofsaaconf,ofsaaatm LOGFILE=ofsaaconf_ofsaaatm_imp.log
```

**NOTE**

Restoring the exported dumps creates the Config and Atomic Schemas with the same user credentials as that of the user credentials in the Source, along with the existing grants.
2.2.2.1 Restore the Complete Exported Dumps Into the Target Environment Database With a Different Database User Name (Schema)

Restore all the exported dumps into the Target environment database with a different database user name (schema).

For Example:

```
impdp SYSTEM/oracle@OFSA12nDB DIRECTORY=data_pump_dir
DUMPFILE=ofsaaconf_ofsaaatm_%U.dmp REMAP_SCHEMA=ofsaaconf:newofsaaconf,ofsaaatm:newofsaaatm
LOGFILE=new_ofsaaconf_ofsaaatm_imp.log
```

**NOTE**
- Restoring the exported dumps creates the Config and Atomic Schemas with the users mentioned under the `REMAP_SCHEMA` attribute. The `REMAP_SCHEMA` attribute is replaced as that of the Source along with the existing grants as in the Source environment.
- Ignore the ORA-39082 object type created with the compilation errors. You can rectify this later in the subsequent steps.

2.2.3 Provide Grants and Set Passwords Using the SysDBA User Login

*Restore the Complete Exported Dumps into the Target Environment Database with a Different Database User Name (Schema)* does not provide the select grants permission. You must log in with the SysDBA user role to provide the select grants permission and set the passwords. The following subsections provide the instructions.

2.2.3.1 Provide the Select Grants Permission on the `sys.V_$parameter` View to the Config and Atomic Schemas of the Target Environment Database

Provide the select grants permission on the `sys.V_$parameter` view to the Config and Atomic Schemas of the target environment database.

For example:

```
Log in as the sys user and run the following commands:
SQL> GRANT SELECT ON SYS.V_$PARAMETER TO ofsaaconf;
Grant succeeded
SQL> GRANT SELECT ON SYS.V_$PARAMETER TO ofsaaatm;
Grant succeeded
```
2.2.3.2 Set the Passwords for the Config and Atomic Schemas of the Target Environment Database with Different Schema Names

When you import into the Target environment database with different schema names, set the passwords for the Config and Atomic Schemas the same as that in the Source environment database.

**NOTE**
If this step is not applicable, ignore it and proceed to the next step.

For example:
Log in as the sys user and run the following commands:

```
SQL> ALTER USER newofsaaconf IDENTIFIED BY welcome1;
User Altered
SQL> ALTER USER newofsaaatm IDENTIFIED BY welcome1;
User Altered
```

2.2.4 Log In to the Config Schema of the Target Environment Database

Log in to the Config Schema of the Target environment database. Update the values in the Config Schema table as mentioned in Table 1 in Appendix A.

**NOTE**
This step is applicable if you have imported into different schema names for the OFS AAI (platform) versions 8.0.5.2.x, 8.0.5.3.x, 8.0.5.4.x, and higher.

2.2.5 Copy and Restore the OFSAA File System

To copy and restore the OFSAA file system, follow these steps:

1. Navigate to the `$FIC_HOME/utility/Clone/bin` path in the Source environment and grant the 750 permission to all the files present in the directory.

2. Execute the command:

   ```
   ./OFSAA_Archive.sh
   ```

   This step creates zipped files for the `$FIC_HOME` and `FTPSHARE` directories in their respective locations in the Source.

   For example:

   `<FIC_HOME>.zip`

   `<FTPSHARE>.zip`

3. Copy the `<FIC_HOME>` and `<FTPSHARE>` archive files from the Source to the Target in their respective locations, that is, as per the directories created in the `$FIC_HOME` and `FTPSHARE`
directories. For more information, see Set the OFSAA installation directory as $FIC_HOME and Set the OFSAA staging/metadata repository directory as ftpshare in the Target System Requirements section.

NOTE  
Transfer the archives in the BINARY mode.

4. The OFSAA installer made entries in the .profile file of the Source. Copy the entries to the .profile file of the Target in the respective locations.

5. To unzip, navigate to the directory where the zipped directory is present in the Target environment and execute the following command:
   
   ```
   unzip -a <<Zipped_file>>
   ```

   For example:
   
   ```
   unzip -a ftpshare.zip
   ```

   Perform this step for both the <FIC_HOME> and <FTPSHARE> zipped files. This unzips both files in their respective locations in the Target environment.

6. Give the 750 permission recursively to the $FIC_HOME directory and the 775 permission to the FTPSHARE directory extracted in the Target environment.

   For example:
   
   ```
   chmod -R 750 $FIC_HOME
   chmod -R 775 FTPSHARE
   ```

7. In the .profile file of the Target environment, modify the variables FIC_HOME, JAVA_BIN, PATH, ORACLE_HOME, TNS_ADMIN, ORACLE_SID and OFSAA_LOG_HOME in the entries made by the installer according to the required values of the Target environment.

   For example, change the path to Java Runtime in the JAVA_BIN variable according to the Java Runtime installation on the Target environment.

8. Execute the .profile file in the Target environment.

9. Edit the tnsnames.ora file present in the $TNS_ADMIN directory to add or edit the connection details to the OFSAA schemas of the Target environment.

2.2.6 Modify Files in the Path $FIC_HOME When You Import the Files into Different Schemas

After importing the files into different schemas, modify the files in the $FIC_HOME path. Follow these steps:

1. In the OFSAA server, navigate to the $FIC_HOME directory.

2. Modify values in the files as specified in step 2 of Appendix A and follow subsequent steps in the Appendix.
2.2.7 Run the Port Changer Utility

Before running the Port Changer Utility, complete the following prerequisites:

- Ensure that the RevLog4jConfig.xml file is configured with the default log paths.
- This utility connects to the Config Schema to collect all the configurations. Therefore, in the $FIC_HOME/conf directory, you must edit the DynamicServices.xml file for the DEFAULT_CONNECTION_URL attribute. Ensure that the VALUE is a qualified jdbc URL of the Target database.

To run the Port Changer Utility, follow these steps:

1. Navigate to the $FIC_HOME directory in the Target.
2. Run the PortC.jar utility using the command:

   ```java
   java -jar PortC.jar DMP
   ```

   Running the above command creates a file with the name DefaultPorts.properties in the $FIC_HOME directory. The directory contains the information related to the ports, IPs, and paths currently in use.

3. Make the necessary changes to those ports, IPs, and paths in the DefaultPorts.properties file as per the Target environment. Save the changes.

4. Run the PortC.jar utility using the command:
java -jar PortC.jar UPD

Running the above command changes the ports, IPs and paths in the .profile file (in the home directory), all the files in the $FIC_HOME directory, and the database tables according to the values mentioned in the DefaultPorts.properties file.

5. Execute the .profile file and create the EAR/WAR file. Then restart the OFSAA services and redeploy to the configured web application server.

**NOTE**

- The table batch_parameter is not updated with the new IP after you run the file portc.jar. The table holds the batch execution details of the batches that were executed earlier. The table batch_parameter_master holds the new IP after you run portc.jar.
- Check the logs for more information, and contact My Oracle Support if you encounter any errors.

### 2.2.7.1 Run the Port Changer Utility for the OFSAAI Versions 8.0.2.2.0, 8.0.3.3.0, 8.0.4.2.0 to 8.0.4.5.0, 8.0.5.2.0 to 8.0.5.4.0, or 8.0.6.0.0, and Higher

To run the Port Changer Utility for the OFSAAI versions 8.0.2.2.0, 8.0.3.3.0, 8.0.4.2.0 to 8.0.4.5.0, 8.0.5.2.0 to 8.0.5.4.0 or 8.0.6.0.0, and higher, follow these steps:

1. Navigate to the $FIC_HOME/utility/PortC/bin directory on the Target.
2. Run the PortC.sh utility using the command:

   ```bash
   ./PortC.sh DMP
   ```

   Running the above command creates a file with the name DefaultPorts.properties in the $FIC_HOME directory. The directory contains the information related to the ports, IPs, and paths currently in use.

**NOTE**

It is mandatory to run the Port Changer utility using the DMP parameter every time before executing the utility using the UPD command.

3. Make the necessary changes to those ports, IPs, and paths in the DefaultPorts.properties file as per the Target environment. Save the changes.
4. Run the PortC.sh utility using the command:

   ```bash
   ./PortC.sh UPD
   ```

   Running the above command changes the ports, IPs and paths in the .profile file (in the home directory), all the files in the $FIC_HOME directory, and the database tables according to the values mentioned in the DefaultPorts.properties file.
5. Execute the .profile file and create the EAR/WAR file. Then restart the OFSAA services and redeploy to the configured web application server.
2.2.8 Run the EncryptC.jar Utility to Change the Key and Encryption Strings

To change the key and encryption strings, run the **EncryptC.jar** utility. Perform the following steps:

**NOTE** This section is applicable to the OFS AAI 8.0.0.0.0 and later versions. However, there are a few versions that are exceptions. The information to run the **EncryptC.jar** utility for these versions is mentioned in separate sections. They are:

- Run the EncryptC.sh Utility to Change the Key and Encryption Strings for the OFS AAI Versions 8.0.2.2.0, 8.0.4.2.0 to 8.0.4.5.0, and 8.0.5.2.0 to 8.0.5.4.0
- Run the EncryptC.sh Utility to Change the Key and Encryption Strings for the OFS AAI Versions 8.0.6.0.0 and Higher

1. Navigate to the `$FIC_HOME` directory in the Target environment.
2. Execute the following command:
   ```
   java -jar EncryptC.jar
   ```
3. To access the log information, see the `Encrypt_utility.log` file in the `$FIC_HOME/utility/EncryptC/bin` directory.

2.2.8.1 Run the EncryptC.sh Utility to Change the Key and Encryption Strings for the OFS AAI Versions 8.0.2.2.0, 8.0.4.2.0 to 8.0.4.5.0, and 8.0.5.2.0 to 8.0.5.4.0

**NOTE** The file `EncryptC.jar` primarily maintains the new encrypt keys for a new environment. Therefore, there is no impact if you skip this optional step. You can choose to change the key and encryption strings at any time after cloning. However, we recommend that you complete this step now.

To change the key and encryption strings for the OFS AAI versions 8.0.2.2.0, 8.0.4.2.0 to 8.0.4.5.0, and 8.0.5.2.0 to 8.0.5.4.0, run the **EncryptC.sh** utility. Follow these steps:

1. Navigate to the `$FIC_HOME/utility/EncryptC/bin` directory in the Target environment.
2. Execute the following command:
   ```
   ./EncryptC.sh
   ```
3. To access the log information, check the `Encrypt_utility.log` file in the `$FIC_HOME/utility/EncryptC/bin` directory.
NOTE

If you get the error message "Error: Could not find or load main class OFSAAI.AESCrypter" after you execute the command "./EncryptC.sh", it is because the required jar file is missing in the lib directory.

To execute the EncryptC.jar file in the version 8.0.4.2.0, update the EncryptC.sh file with the following entry and proceed with execution:

Replace the following line:

```
"JAR_FILELIST=`find ../lib \( -name "*.jar" \)`
```

with this line:

```
"JAR_FILELIST=`find $FIC_HOME \( -name "*.jar" \)`
```

2.2.8.2 Run the EncryptC.sh Utility to Change the Key and Encryption Strings for the OFS AAI Versions 8.0.6.0.0 and Higher

Run the EncryptC.sh utility to change the key and encryption strings for the OFS AAI 8.0.6.0.0 and higher versions.

NOTE

This step is mandatory.

For more information, see the Generating new AESCryptKey.ext and updating the keystore section in the Key management section in the OFS Analytical Applications Infrastructure Administration Guide.

2.2.9 Perform the Post-Cloning Configurations

Perform the post-cloning configurations as mentioned in the Post Installation Configurations section in the versions 8.0.2.0.0 and 8.0.7.0.0 of the OFS AAI Application Pack Installation and Configuration Guide.

2.2.10 Create and Deploy the .ear/.war files

To create and deploy the .ear/.war files, follow these steps:

1. Navigate to the $FIC_WEB_HOME directory in the Target environment.
2. Delete the OFSAA application *.war/*.ear file present in this directory.
3. Execute the command:
   
   ```
   ./ant.sh
   ```
4. Copy the generated .ear/.war file to the Web Application Server identified for this OFSAA instance.
5. Modify all the Database connection resources done on the Web Application Server that are mapped to the new JDBC URL and Database User Credentials. Verify the test connection to validate.

6. Deploy the .ear/.war file using the Web Application Server Admin Console.

2.2.10.1 Access the UI

Access the UI by using the new IP Address/Host Name, the new Port, and the new Context Name.

For example:

http://<IP ADDRESS/ HOSTNAME>:<PORT>/<CONTEXT NAME>/login.jsp
Appendix A

Manually modify the occurrences of the Source database user name with a new Target database user name (see the REMAP_SCHEMA attribute mentioned in the Restore the Complete Exported Dumps Into the Target Environment Database subsection of the Cloning Process section).

1. Log in to the newly imported Config Schema and update the column values as mentioned in the following table (Ignore if there are no rows found):

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>TABLE NAME</th>
<th>COLUMN NAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>DB_MASTER</td>
<td>DBUSERID</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DBNAME</td>
</tr>
<tr>
<td>2.</td>
<td>AAI_DB_AUTH_ALIAS</td>
<td>V_AUTH_USERNAME</td>
</tr>
<tr>
<td></td>
<td></td>
<td>V_AUTH_ALIAS</td>
</tr>
<tr>
<td>3.</td>
<td>AAI_DB_DETAIL</td>
<td>V_SCHEMA_NAME</td>
</tr>
<tr>
<td></td>
<td></td>
<td>V_DB_NAME</td>
</tr>
<tr>
<td>4.</td>
<td>AAI_DMT_SOURCE</td>
<td>V_TABLE_OWNER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>V_DB_NAME</td>
</tr>
<tr>
<td>5.</td>
<td>AAI_ETL_SOURCE</td>
<td>V_TABLE_OWNER</td>
</tr>
<tr>
<td></td>
<td></td>
<td>V_DB_NAME</td>
</tr>
<tr>
<td>6.</td>
<td>ETLSOURCEDETAILS</td>
<td>V_SCHEMA</td>
</tr>
<tr>
<td>7.</td>
<td>DSNMASTER</td>
<td>DBNAME</td>
</tr>
<tr>
<td></td>
<td></td>
<td>V_INFO_DB_NAME</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CREATEDUSR</td>
</tr>
<tr>
<td>8.</td>
<td>AAI_DB_PROPERTY</td>
<td>V_PROPERTY_VALUE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>V_DB_NAME</td>
</tr>
<tr>
<td>9.</td>
<td>METADATA_ELEMENT_MASTER</td>
<td>V_ELEMENT_VALUE</td>
</tr>
<tr>
<td>10.</td>
<td>VIEW_DERIVED_ENTITY_TPOSE</td>
<td>SCHEMA_NAME</td>
</tr>
<tr>
<td>11.</td>
<td>II8NMASTER</td>
<td>REVCONTEXT</td>
</tr>
</tbody>
</table>

**NOTE**

V_DB_NAME and DBNAME values are TNS aliases for Atomic Schema and must not contain underscores.

For example, assuming that the Target Schema Name is PROD_OFSAATMNEW, then the value for V_DB_NAME must be entered as PRODOFSAAATMNEW.

2. Manually modify the occurrences of the Source Config database user name with the new Target Config database user name. See the following table for details:
### Table 4: Source and Target Config Database User Name Files

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Directory Path</th>
<th>File Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>$FIC_HOME/conf/</td>
<td>Reveleus.SEC</td>
</tr>
<tr>
<td>2.</td>
<td>$FIC_HOME/utility/OFSAAGenerateRepository/conf/</td>
<td>Reveleus.SEC</td>
</tr>
<tr>
<td>3.</td>
<td>$FIC_HOME/conf/</td>
<td>DynamicServices.xml</td>
</tr>
<tr>
<td>4.</td>
<td>$FIC_HOME/MigrationUtilities/Migration_LDAP/conf/</td>
<td>DynamicServices.xml</td>
</tr>
<tr>
<td>5.</td>
<td>$FIC_HOME/utility/OFSAAGenerateRepository/conf/</td>
<td>DynamicServices.xml</td>
</tr>
<tr>
<td>6.</td>
<td>$FIC_HOME/ficweb/webroot/conf/</td>
<td>DynamicServices.xml</td>
</tr>
<tr>
<td>7.</td>
<td>$FIC_HOME/EXEWebService/Tomcat/ROOT/conf/</td>
<td>DynamicServices.xml</td>
</tr>
<tr>
<td>8.</td>
<td>$FIC_HOME/EXEWebService/WebSphere/ROOT/conf/</td>
<td>DynamicServices.xml</td>
</tr>
<tr>
<td>10.</td>
<td>$FIC_HOME/commonscripts/</td>
<td>ofs_aai_create_atomic.ora</td>
</tr>
</tbody>
</table>

**NOTE**
- Based on the Web Application Server, choose the relevant directory path from Sl. No. 7, 8, or 9 from the preceding table.
- The file mentioned in Sl. No. 10 is not applicable for new installations (are not upgrade installations from previous versions) of the OFS AAI versions 8.0.6 and higher. However, it is mandatory for OFS AAI upgrade installations for version 8.0.2.x.x and higher.

3. Execute the following one-off patch steps:

**NOTE**
- This step is applicable for new installations (are not upgrade installations from previous versions) of the OFS AAI versions 8.0.6 and higher.
- Skip this step for OFS AAI versions 8.0.5.4.x and lower since it is not required.

a. Log in to [https://support.oracle.com/](https://support.oracle.com/) and search for the one-off patch 30828901 under the *Patches & Updates* tab.

b. Download the patch and apply it. See the *Readme.txt* file packaged with the patch for details on how to apply it.

c. Enter details for the following information when prompted:

   Enter Connect String :
   newofsaaatm/<PASSWORD>OFSA12nDB

   Enter Folder Path:
Enter new Config Schema name :
newofsaaconf
Enter infodom name :
OFSAAAINFO

After entering the details, the patch creates the SQLScripts_OFSAAI_$INFODOM directory, replaces placeholder values in the metadom files, and then executes SQL scripts in the metaschema as mentioned in the connect string.

4. Execute scripts on the Atomic Schemas to update the new Target Config database user name as mentioned in the following steps:

**NOTE** This step is not applicable for new installations (are not upgrade installations from previous versions) of the OFS AAI versions 8.0.6 and higher. However, it is mandatory for OFS AAI upgrade installations for version 8.0.2.x.x and higher.

**a.** On the Putty console, navigate to the $FIC_HOME/commonscripts/ path on the OFS AAI server.

**b.** Create a copy of the file ofs_aai_create_atomic.ora as ofs_aai_create_atomic_<INFODOM>.ora.

**c.** Replace the $INFODOM placeholder with the actual infodom name in the file ofs_aai_create_atomic_<INFODOM>.ora.

**NOTE** Enclose the actual infodom name within a single quote.

INFODOM is associated with each Atomic Schema. Therefore, you must create individual files for each Atomic Schema.

You can fetch the INFODOM value associated with each Atomic Schema by executing the following query in the newly modified Config Schema.

```
SQL> select h.dbuserid, g.dsnid from dsnmaster g, db_master h
where g.dbname = h.dbname and h.dbname <> 'CONFIG';
```

d. Connect to the Atomic Schemas using the sqlplus utility of the $ORACLE_HOME/bin directory.

e. Execute the ofs_aai_create_atomic_<INFODOM>.ora file and ignore the ORA-00001 ORA-02260, ORA-00955, and ORA-02292 errors in the log file. If there are other errors, contact My Oracle Support.

```
SQL> spool aai_create_<INFODOM>.log
SQL> @ofs_aai_create_atomic_<INFODOM>.ora
SQL> spool off
```
NOTE

Repeat this step for all the Atomic Schemas.

After the execution, delete all the files created as 
ofs_aai_create_atomic_<INFODOM>.ora.

f. Log in to the newly imported Atomic Schemas. Perform the following steps on each Atomic Schema to modify the interdependent object:

Run the following query in each Atomic Schema for the verification of invalid object status:

```sql
select object_type, object_name from user_objects
where object_type in ('FUNCTION', 'PACKAGE', 'PACKAGE BODY', 'PROCEDURE', 'TRIGGER', 'VIEW') and status = 'INVALID'
order by object_type, object_name;
```

If the preceding query lists out the objects, then you can compile the invalid objects and enable the object registration elements by following these steps:

i. Run the following anonymous block to compile the invalid objects:

```sql
BEGIN
  FOR cur_rec IN ( select object_type, object_name from user_objects
    where object_type in ('FUNCTION', 'PACKAGE', 'PACKAGE BODY', 'PROCEDURE', 'TRIGGER', 'VIEW') and status = 'INVALID'
    order by object_type, object_name )
    LOOP
    BEGIN
    IF cur_rec.object_type = 'PACKAGE BODY' THEN
      EXECUTE IMMEDIATE 'ALTER PACKAGE "' || cur_rec.object_name || '" COMPILE BODY';
      COMMIT;
    ELSE
      EXECUTE IMMEDIATE 'ALTER "' || cur_rec.object_type || '" "" || cur_rec.object_name || '" "" COMPILE';
      COMMIT;
    END IF;
    EXCEPTION
    WHEN OTHERS THEN NULL;
  END;
END LOOP;
END;
```

ii. Run the following scripts to enable the object registration elements:
spool <Validpath>/restore_owner.log
alter table REV_TABLES_TL disable constraint FK_REV_TABLES_TL_1
/
alter table REV_TABLE_CLASS_ASSIGNMENT disable constraint FK_V_TABLE_CLASS_ASSIGNMENT_2
/
alter table REV_TABLE_COLUMNS disable constraint FK_REV_TABLE_COLUMNS_1
/
alter table REV_TABLE_LOG_CLASS_ASMNT disable constraint FK_V_TABLE_CLASS_LOG_ASMNT_2
/
alter table REV_TAB_CONSTRAINTS disable constraint FK_REV_TAB_CONSTRAINTS
/
alter table REV_TAB_CONSTRAINT_COLUMN disable constraint FK_REV_TAB_CONST_COLUMNS
/
alter table REV_TAB_INDEXES disable constraint FK_REV_TAB_INDEXES
/
update FSI_DB_INFO set owner=USER
/
update REV_COLUMN_PROPERTIES set owner=USER
/
update REV_DESCRIPTION_TABLES set owner=USER, DESCRIPTION_TABLE_OWNER=USER
/
update REV_TABLES_B set owner=USER
/
update REV_TABLES_TL set owner=USER
/
update REV_TABLE_CLASS_ASSIGNMENT set owner=USER
/
update REV_TABLE_COLUMNS set owner=USER
/
update REV_TABLE_Columns_MLS set owner=USER
/
update REV_VIRTUAL_TABLES set owner=USER
/
update REV_VIRTUAL_TABLES_MLS set owner=USER
/
update REV_VIRTUAL_TABLES_TL set owner=USER
/
update REV_TAB_CONSTRAINTS set owner=USER
/
update REV_SYNONYMS set table_owner=USER
/
update REV_TABLE_LOG_CLASS_ASMNT set owner=USER
/
update REV_TABCONSTRAINT_COLUMN set owner=USER
/
update REV_TAB_INDEXES set owner=USER
/
update REV_TAB_REF_CONSTRAINTS set owner=USER
/
alter table REV_TABLE_LOG_CLASS_ASMNT enable constraint FK_V_TABLE_CLASS_LOG_ASMNT_2
/
alter table REV_TAB_CONSTRAINTS enable constraint FK_REV_TAB_CONSTRAINTS
/
alter table REV_TABCONSTRAINT_COLUMN enable constraint FK_REV_TAB_CONST_COLUMN
/
alter table REV_TAB_INDEXES enable constraint FK_REV_TAB_INDEXES
/
alter table REV_TAB_COLUMNS enable constraint FK_REV_TAB_COLUMNS_1
/
alter table REV_TABLE_CLASS_ASSIGNMENT enable constraint FK_V_TABLE_CLASS_ASSIGNMENT_2
/
alter table REV_TABLES_TL enable constraint FK_REV_TABLES_TL_1
/
commit
/
spool off
exit;
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- Did you find any errors?
- Is the information clearly presented?
- Do you need more information? If so, where?
- Are the examples correct? Do you need more examples?
- What features did you like most about this manual?

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